

ABSTRACT

To provide an aluminum nitride powder and an aluminum nitride sintered body which satisfy both high thermal conductivity of an aluminum nitride sintered body and reduction in the shrinkage factor at the time of sintering.

An aluminum nitride powder characterized in that it has local maximum values in size in regions of from 3 to 15 μm , from 0.5 to 1.5 μm and 0.3 μm or less, the proportions of particles in the respective regions are from 40 to 70%, from 25 to 40% and from 0.5 to 20% on the volume basis, and it has an oxygen amount of from 0.5 to 1.5 mass%. An aluminum nitride sintered body which is a sintered body of a powder mixture containing the above aluminum nitride powder and a sintering aid, characterized by having a thermal conductivity of at least 190 W/m·K and a shrinkage factor represented by the percentage of $\{(\text{dimensions of the molded body before sintering}) - (\text{dimensions of the sintered body after sintering})\} / (\text{dimensions of the molded body before sintering})$ of at most 15%.